10/538681

Docket Number: RN02168
Preliminary Amendment
PCT application date

JC17 Rec'd PCT/PTO 10 JUN 2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-25 (Canceled)

26. (New) A method for enhancing the water repellency of an inorganic hydraulic binder composition, comprising the step of adding a sufficient amount of at least one monovalent cation salt of a carboxylic acid to said composition, said acid having an hydrocarbon chain optionally having halogens, hydroxyl groups, ether groups, thioether groups, ester groups, amide groups, carboxyl groups, sulfonic acid groups, carboxylic anhydride groups or carbonyl groups.

- 27. (New) The method as claimed in claim 26, wherein the monovalent cation salt of a carboxylic acid is in the form of a powder in the inorganic hydraulic binder composition.
- 28. (New) The method as claimed in claim 26, wherein the amount is between 0.001% and 3% by dry weight of the monovalent cation salt of a carboxylic acid, with respect to the total weight of the composition.
- 29. (New) The method as claimed in claim 28, wherein the amount is between 0.01% and 0.5%.
- 30. (New) The method as claimed in claim 29, wherein the amount is between 0.03% and 0.15%.

31. (New) The method as claimed in claim 26, further comprising the step of

premixing the monovalent cation salt of a carboxylic acid with a latex composition.

32. (New) The method as claimed in claim 31, wherein the amount of the

monovalent cation salt of a carboxylic acid, with respect to the total weight of dry

latex, is between 0.1 and 20% by weight, with respect to the weight of the dry latex.

33. (New) The method as claimed in claim 31, wherein the monovalent cation salt of

a carboxylic acid is added in the powder form to the latex composition in the form of a

redispersible powder.

34. (New) The method as claimed in claim 31, wherein the monovalent cation salt of

a carboxylic acid is added in the powder or solution form to the latex composition in

the form of an aqueous dispersion during the polymerization or at the end of the

polymerization.

35. (New) The method as claimed in claim 31, wherein the monovalent cation salt of

a carboxylic acid is added in the powder form to the latex composition during a further

step of drying by atomization of the latex.

36. (New) The method as claimed in claim 31, wherein the latex composition

comprises:

at least one water-insoluble polymer,

from 0 to 35% by weight, with respect to the total weight of the polymer, of at least

one protective colloid,

from 0 to 30% by weight, with respect to the total weight of the polymer, of anticaking

agents, and

4

from 0.1 to 20% by weight, with respect to the total weight of the polymer, of at least

one monovalent cation salt of a carboxylic acid.

37. (New) The method as claimed in claim 36, wherein the water-insoluble polymer

is obtained by polymerization of vinyl esters, alkyl acrylates, alkyl methacrylates,

whose alkyl group has from 1 to 10 carbon atoms, and/or vinylaromatic monomers.

38. (New) The method as claimed in claim 37, wherein the water-insoluble polymer

is obtained by polymerization of monomers selected from the group consisting of:

vinyl acetate,

methyl methacrylate, ethyl methacrylate, n-butyl methacrylate, 2-ethylhexyl

methacrylate, methyl acrylate, ethyl acrylate, n-butyl acrylate, 2-ethylhexyl acrylate,

and

styrene.

39. (New) The method as claimed in claim 37, wherein the monomers are further

copolymerized with other monomers possessing ethylenic unsaturation being olefins,

vinyl esters of saturated, branched or unbranched, monocarboxylic acids having from 1

to 12 carbon atoms, esters of branched C₉-C₁₁ acids, vinyl pivalate or vinyl laurate;

esters of unsaturated mono- or dicarboxylic acids having 3 to 6 carbon atoms with

alkanols having 1 to 10 carbon atoms, vinylaromatic monomers, vinyl halides,

diolefins, (meth)allyl esters of (meth)acrylic acid; (meth)allyl esters of the mono- and

diesters of maleic, fumaric and itaconic acids; or alkene derivatives of amides of

acrylic and methacrylic acids.

5

Docket Number: RN02168
Preliminary Amendment
PCT application date

- 40. (New) The method as claimed in claim 36, wherein the anticaking agents are aluminum silicates, calcium carbonates, magnesium carbonates, silicas, aluminum hydrate, bentonite, talc, kaolin, barium sulfate, titanium oxide, or calcium sulfoaluminate (satin white).
- 41. (New) The method as claimed in claim 26, wherein the monovalent cation salt of a carboxylic acid has the formula $C_nH_{(2n-1)}OO^-X^+$ wherein n = 4 to 18 and X is sodium, potassium, lithium, ammonium or quaternary amines.
- 42. (New) The method as claimed in claim 41, wherein n = 8 to 16.
- 43. (New) The method as claimed in claim 26, wherein the monovalent cation salt of a carboxylic acid is sodium laurate and/or potassium laurate.
- 44. (New) The method as claimed in claim 26, wherein the hydraulic binder is a cement, cement of Portland, high-alumina cement, blast-furnace cement, fly ash, calcined shale or pozzolan.
- 45. (New) A grout, mortar or concrete comprising an inorganic hydraulic binder composition made by the process of claim 26.